

## **4. Jābir ibn Ḥayyān & Imam Jafar Sadik.**

### **Jabir ibn Hayyan.**

#### **Introduction of jabir ibn hayyan:**

Jābir ibn Ḥayyān (721-815 AD) was the legendary polymath, chemist, alchemist, and scholar of the early Islamic world. He is often regarded as the “Father of Chemistry” and one of the most influential figures in the history of science. He was a Shia scholar. He was a Shia Muslim, closely connected to Imam Jafar al-Ṣādiq. Most historians link him with early Ismaili Shia circles, though Twelver Shia (Jafari shia) also regard him with respect. A polymath is a person who has deep knowledge and skills in many different subjects, not just one.

#### **Early Life and Background:**

His full name is Abū Mūsā Jābir ibn Ḥayyān al-Azdī. Born around 721 AD in Tus, Khorasan (Persia/Iran), by though some sources place of his birth was Kufa (Iraq). His father was a pharmacist/herbalist who may have been executed for political reasons. He grew up in Kufa (Iraq), one of the major intellectual centers of early Abbasi caliphate. Became associated with the Shia scholarly circles and particularly with Imām Jafar al-Ṣādiq (702–765 AD), who is said to have been his teacher in philosophy and esoteric sciences. Esoteric means secret, hidden, or meant for only a small group of people with special knowledge or understanding.

#### **Education and Influences:**

He was expert in these fields: medicine, pharmacy, chemistry, mathematics, and philosophy. He was influenced by Greek, Persian, and Indian sciences & transmitted into Arabic during the Abbasid era. His association with Imām Jafar al-Ṣādiq gave him a strong background in both religious thought and experimental inquiry. He also influenced by Hermetic and alchemical traditions, blending mysticism (spiritual) with experimental methods.

He was inspired by (Hermetic ideas) old teachings that mixed philosophy, magic, and spiritual wisdom) and by (alchemy) early science that tried to turn metals into gold and discover secret medicines & instead of only focusing on spiritual or mystical beliefs, he also mixed in some practical experiments and scientific methods.

#### **Career and Historical Context:**

He lived under the Abbasid Caliphate during its golden age of intellectual expansion. Some sources say he worked under the patronage of Caliph Hārūn al-Rashīd (786–809 AD). He not only worked as an alchemist (doing experiments with metals, chemicals, and medicines) but also wrote many books about his knowledge and ideas. His reputation grew not only in the Islamic world but also in medieval Europe through Latin translations.

#### **Major Works:**

Tradition attributes hundreds of books to him (some estimates say over 3,000, though many were written by later followers of the “Jābirian sect maslak”).

#### **Key works include:**

1. **Kitāb al-Kīmiyā' (Book of Chemistry)** — introduced systematic experimentation in alchemy.
2. **Kitāb al-Sabīn (Book of the Seventy)** — was translated into Latin, influenced medieval European alchemists.
3. **Kitāb al-Raḥma al-Kabīr (The Great Book of Mercy)** — outlines chemical theories and experiments.
4. **Kitāb al-Tajmī' (Book of Compilation)** — covers practical chemical recipes.
5. **Kitāb al-Aḥjār (Book of Stones)** — deals with minerals and chemical transformations.
6. **The Jābirian Corpus (The Works of Jābir ibn Ḥayyān)** — It's the name given to the collection of books written by or linked to Jābir ibn Ḥayyān. It is a large body of writings on alchemy, philosophy, mathematics, astronomy, and magic.

### **Contributions to Science and the World:**

#### **In Chemistry & Alchemy**

1. Introduced systematic experimentation — not just speculation, but testing and recording results.
2. Described methods of distillation, crystallization, sublimation, calcination, evaporation, and filtration (he explained how to clean and separate substances by different methods, such as)

**Distillation** – heating a liquid to turn it into vapor and then cooling it back into liquid to make it pure.

**Crystallization** – turning a substance into crystals to separate or purify it.

**Sublimation** – changing a solid directly into gas (without becoming liquid first).

**Calcination** – heating something strongly until it turns into powder or ash.

**Evaporation** – letting liquid slowly disappear into air, leaving the solid part behind.

**Filtration** – passing a mixture through cloth, paper, or another filter to separate solids from liquids.

3. Discovered or improved the substances such as: Sulfuric acid, Hydrochloric acid, Nitric acid, Aqua regia (mixture of acids that dissolves gold)
4. Classified substances into metals, nonmetals, and spirits (volatile substances).
5. He explained how chemicals react with each other by using the right amounts and keeping them in balance (stoichiometry) (measuring the exact proportions of substances in a reaction). (He believed chemical reactions work properly only when the right quantities are mixed.)
6. Applied chemistry to medicine, preparing compounds, ointments, and drugs.
7. Advocated careful dosage and systematic testing.
8. Used numerical symbolism and proportions in chemical theories.

9. He also wrote about geometry (shapes, measurements) and arithmetic (numbers and calculations), because he believed these were important for understanding alchemy and its secrets.

10. He mixed together ideas from Islamic religion, Greek philosophy (logic and science), and Hermetic mysticism (spiritual and secret teachings about the universe).

11. He believed that one metal could be changed into another (like turning copper into gold). But he also said this should be done through real experiments and testing, not by superstition or magic tricks.

### **Teachings and Thought:**

He taught ilm al-mīzān (the science of balance) — the idea that everything in the world is made from different amounts of four qualities: hot, cold, dry, and moist. He believed there is a harmony between nature, numbers, and spirituality. He said we should depend on real experience and experiments, not just old traditions. He saw science as a way to gain knowledge about the material world and also to purify the soul. And his main motto was: true knowledge must mix theory (thinking), practice (experiments), and spiritual wisdom (inner truth).

### **Talent and Personality:**

He was known as a polymath (a person who knows about many different subjects) and had a very strong memory. He wrote many books, though not all of them may really be his. He was practical, creative, and experimental, far ahead of scientists in Europe at that time. His special talent was mixing big spiritual/philosophical ideas with real lab experiments.

### **Death and Legacy:**

He died around 815 AD in Kufa, Iraq. He was called the Father of Chemistry (Abu al-Kimiyā'). His writings formed the basis of Islamic and European alchemy and chemistry. His work influenced medieval European scholars such as Roger Bacon, Albertus Magnus, and Thomas Aquinas. His works in Latin (as "Geber") were studied in European universities until the 17th century. He was pioneered in the experimental method in chemistry, paving the way for modern science.

### **Critical Perspective:**

Some books credited to him were probably written much later by his followers. His belief in turning one metal into another (transmutation) was incorrect, but it inspired people to experiment and explore. Although his mix of mysticism and science may feel confusing to modern readers, it was common in his time. What truly made him important was his focus on experiments, observation, and systematic methods, which marked a real turning point in the history of science.

### **Conclusion:**

Jābir ibn Ḥayyān (721–815 AD) was one of the most influential scientists in Islamic and world history, called as the Father of Chemistry; he introduced laboratory techniques, discovered important acids, and emphasized empirical methods. His vast writings shaped Islamic and European science for centuries, bridging philosophy, medicine, alchemy, and chemistry. Though surrounded by legend, his real contribution was to make science experimental, practical, and universal.

## Imam Jafar Sādiq.

Imām Jafar al-Ṣādiq (702–765 AD) was a great Muslim scholar, teacher, and spiritual guide, honored by both Sunnis and Shīas. He was born in Medina and came from a noble family: his father was Imām Muḥammad al-Bāqir (a respected scholar and the 5th Shīa Imām), and through his mother he was also related to Abū Bakr (r.a), the first caliph. This gave him a unique position, respected by many groups in Islam.

He became famous for his deep knowledge of the Quran, ḥadīth, Islamic law, theology, and even natural sciences like chemistry and astronomy. Many great scholars, such as Imām Abū Ḥanīfa (the founder of the Ḥanafī sect (maslak) (school of law) and Imām Mālik ibn Anas (the founder of the Mālikī sect (maslak), are said to have studied with him or benefited from his teachings.

For Twelver Shīas (the largest branch of Shīa Islam), he is the sixth Imām in the line of twelve Imāms chosen by Allah. For the Ismā'īlīs (another Shīa branch), he is also the sixth Imām, but they followed his son Ismā'īl instead of his other son Mūsā al-Kāẓim, which created two different successions.

Beyond sects, Imām Jafar is remembered as a man of piety, wisdom, and spirituality. His ideas influenced Islamic jurisprudence (law) and also Sufi mysticism, where he is often quoted as a source of spiritual insight. He taught that true knowledge combines faith, reason, and morality, and his life became a model of humility and devotion to Allah.

### Life & Background:

- Born in Medina in 702 AD.
- Descendant of the Prophet Muḥammad ﷺ through both parents.
- Lived during the Umayyad and early Abbasid periods.
- Known for his piety, simplicity, and deep spirituality.

### Education & Talent:

Learned Quran, ḥadīth, and law from his father Imām Muḥammad al-Bāqir and other scholars of Medina.

Had a sharp memory and deep intellect, with talent in theology, law, philosophy, astronomy, chemistry, and medicine.

Encouraged both rational thinking and spiritual devotion.

**Students:** Many famous scholars studied with him, including:

Imām Abū Ḥanīfa (founder of Ḥanafī Sunni law).

Imām Mālik ibn Anas (founder of Mālikī Sunni law).

Many Sufi teachers who carried his spiritual insights.

He trained hundreds of students, making Medina a center of learning.

### Lifestyle:

Lived a simple and humble life, avoiding luxury. Known for his gentle manners, patience, and generosity. Spent much time in worship, teaching, and guiding students.

### **Works & Books:**

Many writings and teachings are attributed to him, though not all are directly from him.

Among the most famous is the book “Kitāb al-Jafr”, which contains spiritual and symbolic teachings.

His sayings on science, ethics, and spirituality are often quoted in later Islamic works.

### **Teachings & Contributions:**

Emphasized combining reason and faith.

Stressed that science and religion should support each other.

His ideas influenced Islamic law (fiqh), Shīa theology, and Sufi spirituality.

### **Critics & Challenges:**

Faced political pressure under both Umayyad and Abbasid rulers, who feared his influence.

Some critics doubted the attribution of all scientific works to him.

Despite politics, he remained respected by Muslims across sects.

### **Death:**

He died in Medina in 765 AD, possibly poisoned under the order of the Abbasid caliph al-Manṣūr. Shīa tradition strongly believes he was poisoned by the Abbāsids, while many historians say the exact cause of death is uncertain. Buried in Jannat al-Baqī' cemetery in Medina.

**What Shīa sources say:** Most Shīa historians and traditions report that Imām Jafar al-Ṣādiq was poisoned by order of the ‘Abbāsīd caliph al-Manṣūr. They argue that al-Manṣūr saw Imām Jafar’s popularity and influence as a political threat, so he wanted to remove him.

**What Sunni and neutral historians say:**

Many Sunni and modern historians simply record that he died in 765 AD in Medina, without clearly saying he was poisoned. Some historians mention poisoning as a possibility but cannot confirm it with strong evidence.

### **Legacy:**

For Twelver Shīas (Jafari Shia), he is the sixth Imām.

For Ismā'īlīs, he is also the sixth Imām, but they follow succession through his son Ismā'īl.

Widely respected as a scholar, jurist, philosopher, and spiritual guide.

His teachings shaped Islamic law, philosophy, science, and Sufism.

Remembered as a bridge between Sunni and Shīa scholarship.

We all respect him very much. May Allah bless him more.

### **Conclusion:**

Imām Jafar al-Ṣādiq (702–765 AD) was a towering figure in Islamic history, respected by both Sunnis and Shīas for his knowledge, piety, and wisdom. He was born in Medina, descended from the noble family of the Prophet Muḥammad, and became renowned for his deep understanding of the Quran, ḥadīth, law, theology, and natural sciences. His students included great Sunni scholars like Imām Abū Ḥanīfa and Imām Mālik ibn Anas, as well as many Sufi teachers, showing his wide influence. For Shīas, he holds a central place as the sixth Imām, while for Sunnis he is honored as a great teacher and jurist. Despite facing political challenges under the Umayyads and Abbasids, he remained devoted to teaching, worship, and guiding students. His legacy continues to inspire Muslims of all backgrounds, serving as a bridge between different traditions and a model of humility, knowledge, and spirituality. May Allah bless him and grant him the highest place in Paradise.